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C6b: Poster Session-Aortic Disease (2)

PS20.

A Comparative Study of Open Versus Endovascular Repair of Inflammatory Abdominal Aortic Aneurysms

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Objectives: Open repair (OR) of inflammatory abdominal aortic aneurysms (IAAA) is challenging due to adhesions of the aneurysm with the surrounding structures and can be associated with significant morbidity. In recent years endovascular aneurysm repair (EVAR) has emerged as a promising, less invasive approach, although there is a paucity of studies comparing directly these two methods of repair. The aim of our retrospective comparative investigation was to study IAAA outcome after OR compared to EVAR.

Methods: Twenty seven patients (26 males, median age 67 years) with a nonruptured IAAA were included. Mean (sd) IAAA size was 6.0 (1.3) cm. Preoperative pain was reported in 15 cases (56%). Nine patients were managed with EVAR under local (n = 8) or spinal anaesthesia (n = 1) and 18 with OR under general anaesthesia.

Results: Preoperative characteristics of the two study groups were comparable. In the EVAR group, transfusion needs were reduced by 67%, procedure duration was shortened by 58% and postoperative hospitalization was shortened by 4 days (50%), all statistically significant compared to OR (Table). A trend for reduced morbidity and in-hospital mortality after EVAR was also observed. No AAA-related death occurred during follow-up.

Conclusions: Endovascular repair of IAAAs, accomplished in a less invasive manner, is associated with a smoother postoperative course and shorter hospital stay compared to OR. Further studies should focus on the role of EVAR and provide long-term results, including total and aneurysm-related mortality.

Table. Results of endovascular and open repair of inflammatory abdominal aortic aneurysms

	Endovascular repair (n = 9)	Open repair (n = 16)	P value
Number of transfused RBC units [median (interquartile range)]	1.0 (0-1)	3.0 (2.0-5.0)	.001
Procedure duration [median (interquartile range)] (minutes)	70 (68-105)	240 (180-360)	.001
Postoperative hospitalization [median (interquartile range)] (days)	4.0 (2.5-7)	8.0 (6.5-11.5)	.004
Morbidity	11%	33%	.36 ^a
In-hospital mortality	0%	11%	.54
Overall 5-year survival	100%	75%	.75

^aOdds ratio 4.0.

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PS22.

Mid-Term Results and Morphological Neck Changes After EVAR in Patients With Severe Proximal Neck Angulation

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Objectives: We investigate the influence of severe proximal neck angulation on mid-term outcome using the Endurant Stentgraft.

Methods: A joint database of 3 tertiary institutions was inquired. Inclusion in the study group was: suprarenal neck angle (α) $>60^\circ$ or infrarenal neck angle (β) $>75^\circ$ (if neck length ≤ 10 mm, $\alpha > 45^\circ$ or $\beta > 60^\circ$). These were compared to a matched control group without significant angulation, treated in the same period with the same device. Primary endpoint was clinical success. 3D reconstruction was used for measurements. Neck changes over follow-up (FU) were evaluated. Estimates for clinical success were obtained from Kaplan-Meier plots.

Results: From 2008 to 2009, 232 patients were treated, and 45 were included in the study group (age 74 ± 8 , 86% men). Mean α was $51^\circ \pm 21$ and β was $81^\circ \pm 16$. Median FU was 3.0 yrs (2.0-3.4). Compared to the control group (N = 65), no differences were found in clinical success ($P = .79$, Fig). Two post-EVAR ruptures occurred, one in each group. No differences were found in rate or type of reinterventions. Over FU, neck dilatation >2 mm occurred in 45% vs 43% in controls ($P = .23$),